

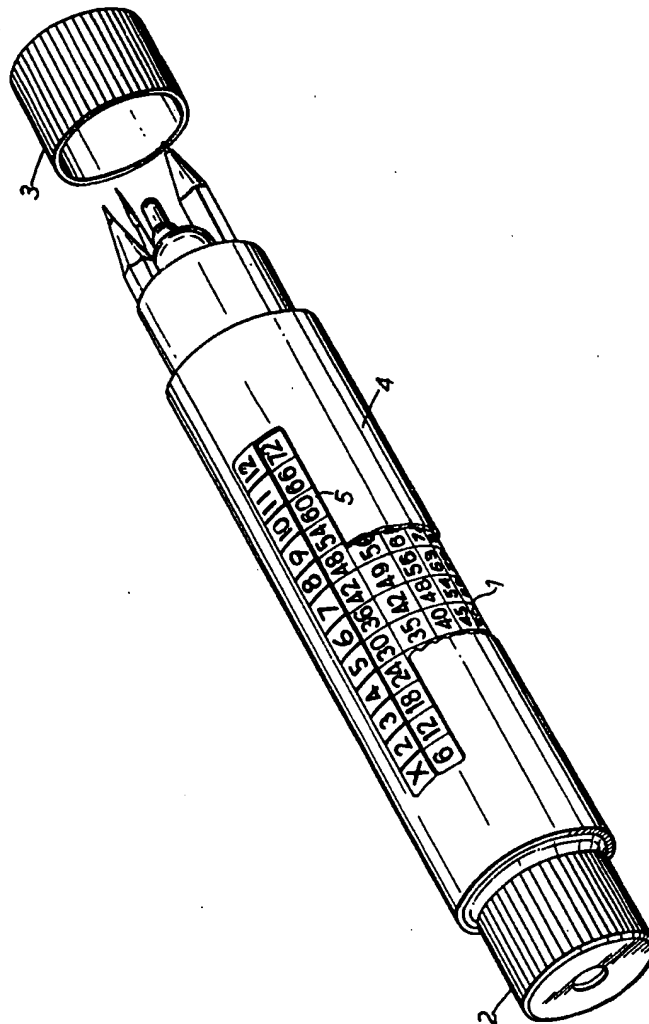
102 (6)

1593152

COMPLETE SPECIFICATION

1 SHEET

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PATENT SPECIFICATION (11)

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(54) IMPROVEMENTS RELATING TO CONTAINERS

(71) I, ERIC ALFRED ATKINSON, a British Subject, of Hill View, Wallsworth, Sandhurst, Gloucestershire, do hereby declare the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention relates to containers and is primarily concerned with small containers such as pencil boxes. It is an object of the invention to provide them with a dual function.

According to the present invention there is provided a container comprising a tube of circular cross section with a removable cap at one open end and being closed at the other end, and a sleeve over at least part of the tube, the sleeve having a window elongate in the axial direction and being rotatable about the tube but permanently confined against axial movement thereon, and the sleeve and tube being marked so that they combine to form a calculator, different calculations being presented *via* the window for different rotational positions of the sleeve.

Preferably the calculator multiplies, multipliers being marked on the sleeve along one of the longer edges of the window and multiplicands and resulting products being marked on the tube.

The cap may be a screw-on one or a press fit and may be knurled or ribbed to provide a good grip. The other end of the container, opposite the cap, may present a similar outward appearance, but instead of being a cap it is preferably a knob fixed to the tube and by which that tube can be rotated with respect to the sleeve.

The knob may incorporate a pencil sharpener, an entry for a pencil to be sharpened conveniently being on an exposed end face of the knob. The knob may be adapted to trap pencil shavings and be removable for clearance of those shavings. The knob may be a press fit onto the tube, and if the cap is a press fit too, it will preferably be less tight than the knob.

The axial confinement of the sleeve may be achieved by an annular rib or array of

studs on the tube or sleeve engaging in a registering annular groove in the sleeve or tube, the interengaging rib or stud array and groove being concealed.

The sleeve will offer space for information associated with the calculations it is designed to perform; for example information concerning weights and measures. Although in the preferred example the calculator serves to multiply numbers it could be adapted for other operations, such as division, and there could be two or more windows for different types of operation.

The container is intended primarily for use by children and may be used as a pencil case.

For a better understanding of the invention one embodiment will now be described, by way of example, with reference to the single figure of the accompanying drawing, which is an exploded perspective view, with parts cut away, of a combined pencil box/calculator.

A pencil box is in the form of a container with a cylindrical tube 1, permanently closed at one end by a knob 2 secured to the tube 1, and with a press fit cap 3 at the other end by which there is access to the container. Both knob and cap are knurled, and in outward appearance are similar.

A sleeve 4 fits over the tube 1 and can be rotated to expose through a window 5, in the form of an elongated slot parallel to the axis of the container, successive lines of symbols arrayed in grid-like form around the tube 1. The sleeve is confined against axial movement.

Along one longitudinal edge of the window 5 there are marked further symbols, each registering with a respective symbol appearing in the window. In the version shown, these symbols comprise the multiplication sign X at one end and the integral numerals from 2 to 12, these being multipliers. The grid on the tube 1, of which only one row or line shows in full, has in the position registering with X a multiplicand (the number 6 showing here); and integral multiples of that number complete the row to provide the correct products of multiplier and multiplicand opposite the multiplier on the sleeve.

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The other rows will be marked out with other multiplicands and products.

The retention of the sleeve 4 on the tube 1 is readily achieved if, as is preferred, both members are of plastics material. A shallow annular rib or array of studs on one member may engage in a registering annular groove in the other, the sleeve being pressed axially into position until the rib or studs snap into the groove, whereupon the sleeve can rotate freely. The rib or studs and the groove will of course be concealed. An additional axial stop is provided by an annular shoulder where the knob 2 is secured to the tube 1.

The knob 2 may be adapted to form a pencil sharpener, and the figure shows an entry 6 in the exposed end face of the knob to a conical recess with a cutting blade. The shavings will be trapped within the knob, whose securing to the tube 1 will conveniently be a press fit, preferably tighter than the fit of the cap 3 at the other end. The tube 1 will have a disc blanking off the end to which the knob 2 fits, in order to retain the contents of the box when the knob is removed to clear the shavings and to keep the shavings confined within the knob until such clearance.

The knob 2 and cap 3 need not be of similar outward appearance. In one preferred alternative the cap is pointed, to resemble the nose cone of a rocket, and the knob is shaped to resemble the tail. Markings and colouring may enhance the resemblance to a rocket.

WHAT I CLAIM IS:—

1. A container comprising a tube of circular cross section with a removable cap at one open end and being closed at the other end, and a sleeve over at least part of the tube, the sleeve having a window elongate in the axial direction and being rotatable about the tube but permanently confined against axial movement thereon, and the sleeve and tube being marked so that they combine to form a calculator, different calculations being presented *via* the window for different rotational positions of the sleeve.

2. A container as claimed in claim 1, wherein the calculator multiplies.

3. A container as claimed in claim 2, wherein multipliers are marked on the sleeve and multiplicands and resulting products are marked on the tube.

4. A container as claimed in claim 1, 2 or 3, wherein the other end of the tube, opposite the cap, provides a knob by which the tube can be rotated with respect to the sleeve.

5. A container as claimed in claim 4, wherein the knob matches the cap in outward appearance.

6. A container as claimed in claim 4, wherein the cap is pointed.

7. A container as claimed in claim 4, 5 or 6, wherein the knob incorporates a pencil

sharpener.

8. A container as claimed in claim 7, wherein an entry for a pencil to be sharpened is on an exposed end face of the knob.

9. A container as claimed in claim 8, wherein the knob is adapted to trap pencil shavings and is removable for clearance of said shavings.

10. A container as claimed in claim 9, wherein the knob is a press fit onto the tube.

11. A container as claimed in any preceding claim, wherein the cap is a press fit onto the tube.

12. A container as claimed in claims 10 and 11, wherein the knob is a tighter press fit than the cap.

13. A container as claimed in any preceding claim, wherein the axial confinement of the sleeve is provided by an annular rib or array of studs on the tube or sleeve engaging in a registering annular groove in the sleeve or tube, the interengaging rib or stud array and groove being concealed.

14. A container as claimed in any preceding claim, wherein there is a plurality of windows.

15. A container substantially as hereinbefore described with reference to the accompanying drawing.

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